

**TRENDS IN CHILD HEALTH
1997-2006:
ASSESSING BLACK-WHITE DISPARITIES**



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FOREWORD

The health of children is a direct reflection and a critical measure of a nation's overall quality of life. For that reason, the persistent disparities in child health indicators across racial and ethnic lines—such as the fact that nearly twice as many black children as white children are born low-weight—should raise concern in every American community. Our country can do and be better than this.

Promoting greater knowledge and understanding of these disparities is a key objective of the Joint Center for Political and Economic Studies, which, with generous support from the W.K. Kellogg Foundation, has analyzed data for selected indicators on the health of children and has examined trends over time (1997-2006). These indicators—specifically, low birthweight, rated health status, unmet dental care need, ADHD/ADD diagnosis, asthma diagnosis, learning disability diagnosis and activity limitation—provide insight into an array of factors that can influence health and quality of life throughout the lifespan.

The findings from this analysis are presented in a series of issue briefs, each of which highlights differences in health outcomes by race/ethnicity (for black, white and Hispanic children). In this brief, disparities between African American children and white children are explored.

I would like to extend a special thanks to Dr. Wilhelmina Leigh of the Joint Center and her research assistant, Anna L. Wheatley. Their work, along with that of many other Joint Center staff members, has produced a series of briefs that will prove invaluable to our national policymakers as they look to improve our health care system. In particular, we hope that the information herein will help them in their efforts to craft new policies and programs that will deliver the broadest possible benefits and, at the same time, have the greatest impact on expanding hope, opportunity and improving the quality of life for all Americans.

Ralph B. Everett, Esq.
President and CEO
Joint Center for Political and Economic Studies

An extensive body of research—including several recent reports (Children’s Defense Fund 2006; Hernandez & Macartney 2008; Land 2008; National Research Council 2004)—has documented the persistence of black-white disparities in children’s health. These disparities often are attributed to factors such as decreased access to health care, inability to afford higher quality care and greater exposure to harmful elements in the environment. Their causes are not well understood, however, because the health disparities are evident at all levels of social and economic status.

To provide fuller detail on disparities in child health, the Joint Center for Political and Economic Studies undertook an examination of how child health indicators vary by sociodemographic characteristics. The findings for black children and white children are provided in this brief.

METHODOLOGY

Data from the National Health Interview Survey (NHIS) for the years 1997 through 2006 were used to compare non-Hispanic white (white) children and non-Hispanic black (black) or African American children under age 18 on the following health indicators:

- Low birthweight
- Health status (as evaluated by a family member)¹
- Recent unmet dental care needs
- ADHD/ADD diagnosis
- Lifetime asthma diagnosis
- Learning disability diagnosis²
- Activity limitation

The significance of gaps between black children and white children on these health indicators was assessed using t-tests of differences of proportions with 90-percent confidence intervals.³ The difference between black children and white children on each indicator was determined to be significant overall if the gap was significant in at least seven years (out of the 10 years 1997 through 2006). The term “indeterminate” is used to characterize gaps on health indicators that are neither statistically significant nor statistically insignificant in a majority of years during the study period.

For each health indicator, in each year between 1997 and 2006, comparisons were made first between children of the two racial groups as a whole. Then, in order to examine the ways in which differences in sociodemographic (i.e., socioeconomic, familial and demographic) characteristics are associated with gaps in health between the two races, African American children and white children in families with characteristics corresponding to the following nine sociodemographic variables were compared.

- Region of residence—Northeast; North Central; South; and West
- Legal marital status (of householder)—Married; or Widowed, divorced, separated, never married or unknown
- Family type—Married-couple; Single-parent

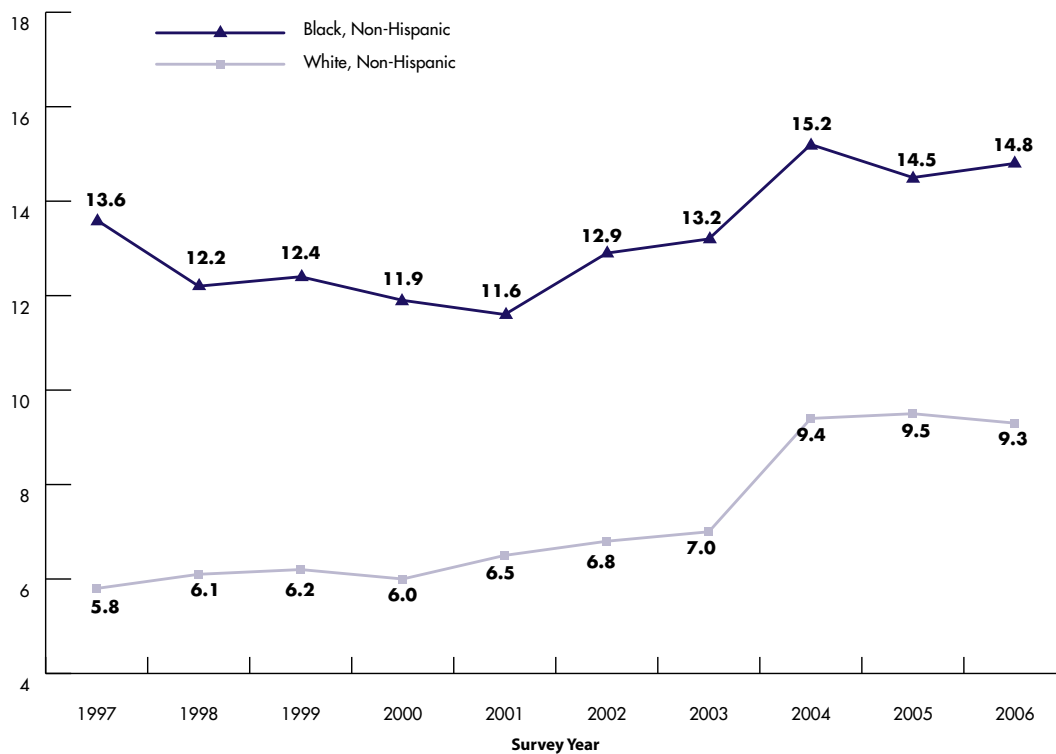
1 Health status is rated as either excellent, very good, good, fair, poor or unknown.

2 Children and their families were told that they had a learning disability by either school personnel or a health professional.

3 For additional information about the tests of significance conducted at both the 90-percent confidence level and the 95-percent confidence level, contact Wilhelmina Leigh at wleigh@jointcenter.org.



Figure 1
Children born low-weight, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

- Educational attainment (of householder/spouse)—Less than high school; High school; Some college; Bachelor's degree or higher
- Employment status (of household)—Zero-earner household; Single-earner household; Two-earner household
- Poverty status (of household or individual)⁴—At or above poverty threshold; Below poverty threshold
- Private health insurance coverage status (of child)—Not covered; Covered
- Medicaid coverage status (of child)—Not covered; Covered
- Health insurance coverage status (of child)—Not covered; Covered

These nine sociodemographic variables include a total of 23 categories and thus provide 23 subgroups of children for comparison.

⁴ The federal poverty threshold is determined by the U.S. Census Bureau, which uses a set of “money income” thresholds that vary by family size and ages of the members to determine who is in poverty. The official poverty thresholds are updated annually for inflation using the Consumer Price Index for All Urban Consumers (CPI-U). For example, in 2006, the poverty threshold for a family of four, including two related children under age 18, was \$20,444. If a family of this composition has an income below this threshold, they are officially considered to be in poverty (U.S. Census Bureau 2008).



LOW BIRTHWEIGHT

Low-birthweight babies are born weighing less than 5 pounds, 8 ounces (or 2,500 grams) (US DHHS 2008). Because babies born with low weight are at increased risk for serious health problems or death, low birthweight is widely used as an indicator of infant health. Low birthweight also has been linked to certain chronic conditions in adulthood, such as high blood pressure, Type 2 diabetes and heart disease (March of Dimes 2008).

This study indicates that black children were more likely than white children to have been born low-weight. Over the 1997-2006 period, on average, 13.2 percent of black infants were born low-weight, compared to 7.2 percent of white infants (**Figure 1**). When African American children and white children in the majority of sociodemographic subgroups are compared, black children also are more likely than white children to have been born low-weight (**Table 1**).

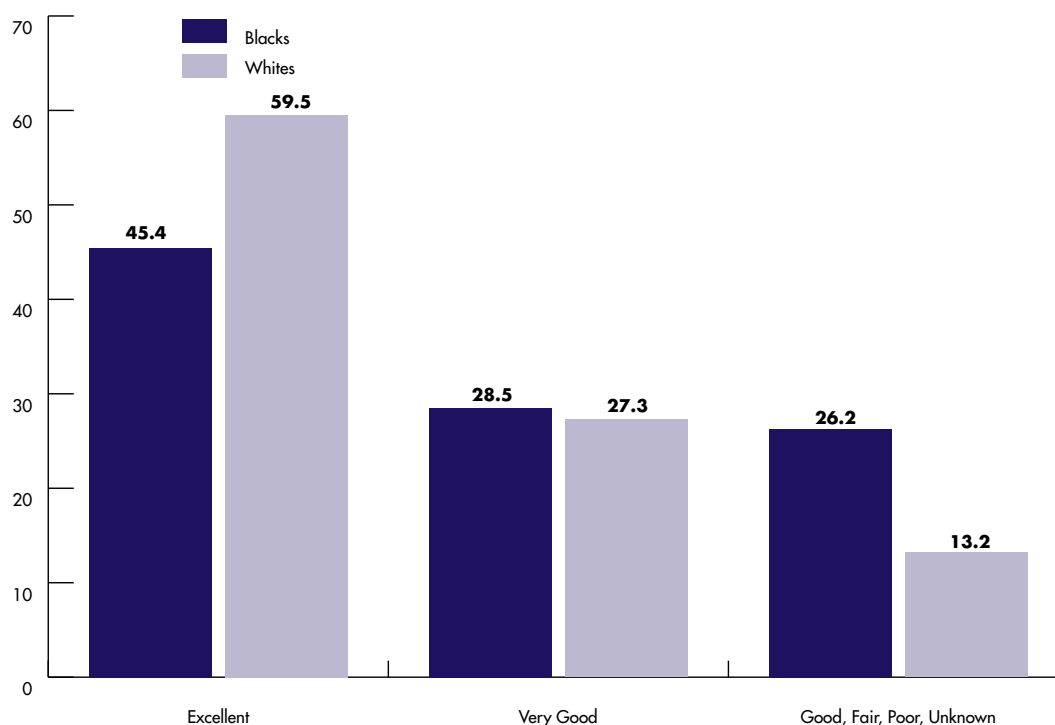
Table 1
Black-White Differences in Low Birthweight by Sociodemographic Variables

Sociodemographic Variables	Findings
Region of residence: South	Black children who live in the South are more likely than white children who live in the South to have been born low-weight.
Marital status: married	Black children in families in which householder's marital status is married are more likely than white children in this same type of family to have been born low-weight.
Marital status: 'widowed, divorced, separated, never married or unknown'	Black children in families in which the householder's marital status is widowed, separated, divorced, never married or unknown are more likely than white children in this same type of family to have been born low-weight.
Family type: married-couple	Black children in married-couple families are more likely than white children in this same type of family to have been born low-weight.
Family type: single-parent	Black children in single-parent families are more likely than white children in this same type of family to have been born low-weight.
Educational attainment: high school	Black children in families in which the educational attainment of the householder/spouse is high school are more likely than white children in this same type of family to have been born low-weight.
Educational attainment: some college	Black children in families in which the educational attainment of the householder/spouse is some college are more likely than white children in this same type of family to have been born low-weight.
Educational attainment: Bachelor's degree (or higher)	Black children in families in which the educational attainment of the householder/spouse is a Bachelor's degree or higher are more likely than white children in this same type of family to have been born low-weight.
Employment status: zero-earner household	Black children in zero-earner households are more likely than white children in this same type of household to have been born low-weight.
Employment status: single-earner household	Black children in single-earner households are more likely than white children in this same type of household to have been born low-weight.

Table 1 continued

Sociodemographic Variables	Findings
Poverty status: at or above poverty threshold	Black children in families with incomes at or above the poverty threshold are more likely than white children in this same type of family to have been born low-weight.
Private insurance coverage status: not covered	Black children who are not privately insured are more likely than white children who are not privately insured to have been born low-weight.
Private insurance coverage status: covered	Black children who are privately insured are more likely than white children who are privately insured to have been born low-weight.
Medicaid coverage status: not covered	Black children who are not covered by Medicaid are more likely than white children who are not covered by Medicaid to have been born low-weight.
Any health insurance coverage status: covered	Black children who are covered by any form of health insurance are more likely than white children who are covered by any form of health insurance to have been born low-weight.

Figure 2
Health Status of Black Children and White Children
(as Reported by a Family Member), 1997-2006 Average
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

Specifically, in families both headed by a married householder and not headed by a married householder, black children are more likely than white children to have been born low-weight. The birthweight disparity between black children and white children also is evident for both categories of family type—single-parent and married-couple. In other words, neither householder marital status nor family type makes a difference in the significance of the gap between the percent of low-weight births among black children and white children.

The only level of educational attainment of the householder/spouse for which African American children are *not* more likely to have been born low-weight is that of less than high school completion. Black children and white children in families in which the householder/spouse has not completed high school are equally likely to have been born low-weight. In addition, private health insurance coverage status seems to make no difference in the incidence of low birthweight. Black children both with and without private health insurance coverage are more likely than white children (with and without private health insurance, respectively) to be born low-weight.

HEALTH STATUS

Ratings of the general health of children are based on the assessment of a family member, who is asked to characterize the child’s health as one of the following: “excellent, very good, good, fair, poor or unknown.” In other words, the NHIS variable for health status reflects a child’s general health (as evaluated by a family member) on a five-point Likert scale, ranging from “excellent” to “poor” along with an unrated “unknown” category. The NHIS interviewers provide only the numerical scale to respondents and do not provide definitions for the various health statuses (excellent, good, very good, fair and poor). Thus, the ratings of health are somewhat subjective and may vary across children. In this analysis, the ratings good, fair, poor and unknown are collapsed into a single category to ensure adequate sample sizes. Over the 1997-2006 period, black children are more likely than white children to be reported in good, fair, poor or unknown health and less likely to be reported in excellent health (Figure 2).

Excellent Health Status

Black children were less likely than white children to be reported in excellent health. On average, 59.5 percent of white children and 45.4 percent of black children were reported in excellent health during the 1997-2006 period (Figure 3). When black children and white children in the majority of sociodemographic subgroups are compared, black children also are less likely than white children to be reported in excellent health (Table 2).

Table 2
Black-White Differences in Excellent Health Rating by Sociodemographic Variables

Sociodemographic Variables	Findings
Region of residence: Northeast	Black children who live in the Northeast are less likely than white children who live in the Northeast to be reported in excellent health.
Region of residence: North Central	Black children who live in the North Central are less likely than white children who live in the North Central to be reported in excellent health.

Table 2 continued

Sociodemographic Variables	Findings
Region of residence: South	Black children who live in the South are less likely than white children who live in the South to be reported in excellent health.
Region of residence: West	Black children who live in the West are less likely than white children who live in the West to be reported in excellent health.
Marital status: married	Black children in families in which the householder's marital status is married are less likely than white children in this same type of family to be reported in excellent health.
Marital status: 'widowed, divorced, separated, never married or unknown'	Black children in families in which the householder's marital status is widowed, divorced, separated, never married or unknown are less likely than white children in this same type of family to be reported in excellent health.
Family type: married-couple	Black children in married-couple families are less likely than white children in this same type of family to be reported in excellent health.
Family type: single-parent	Black children in single-parent families are less likely than white children in this same type of family to be reported in excellent health.
Educational attainment: high school	Black children in families in which the educational attainment of the householder/spouse is high school are less likely than white children in this same type of family to be reported in excellent health.
Educational attainment: some college	Black children in families in which the educational attainment of the householder/spouse is some college are less likely than white children in this same type of family to be reported in excellent health.
Educational attainment: Bachelor's degree (or higher)	Black children in families in which the educational attainment of the householder/spouse is a Bachelor's degree or higher are less likely than white children in this same type of family to be reported in excellent health.
Employment status: zero-earner household	Black children in zero-earner households are less likely than white children in zero-earner households to be reported in excellent health.
Employment status: single-earner household	Black children in single-earner households are less likely than white children in single-earner households to be reported in excellent health.
Employment status: two-earner household	Black children in two-earner households are less likely than white children in two-earner households to be reported in excellent health.
Poverty status: at or above poverty threshold	Black children in families with incomes at or above the poverty threshold are less likely than white children in this same type of family to be reported in excellent health.
Private insurance coverage status: not covered	Black children who are not privately insured are less likely than white children who are not privately insured to be reported in excellent health.



Table 2 continued

Sociodemographic Variables	Findings
Private insurance coverage status: covered	Black children who are privately insured are less likely than white children who are privately insured to be reported in excellent health.
Medicaid coverage status: not covered	Black children who are not covered by Medicaid are less likely than white children who are not covered by Medicaid to be reported in excellent health.
Any health insurance coverage status: covered	Black children who are covered by any form of health insurance are less likely than white children who are covered by any form of health insurance to be reported in excellent health.

In particular, African American children are less likely than white children to be reported as being in excellent health, regardless of the following variables: region of residence, marital status of householder, family type, household employment status and possession of private health insurance (**Table 2**). When comparing families with higher educational attainment (i.e., householder/spouse has educational attainment of high school or beyond), black children are less likely than white children to be reported in excellent health. Black children are *not* less likely than white children to be reported in excellent health, however, when comparing families with lower educational attainment (i.e., educational attainment of the householder/spouse is less than high school). Black children and white children in families in which the educational attainment of the householder/spouse is less than high school instead are *equally* likely to be rated in excellent health. Additionally, among families with income at or above the federal poverty threshold, black children are less likely than white children to be reported in excellent health.

Among children who do not have Medicaid coverage, black children are less likely than white children to be reported in excellent health. When families with any type of health insurance coverage (including Medicaid) are compared black children also are less likely than white children to be reported in excellent health.

Very Good Health Status

Black children and white children were equally likely to be reported in very good health. During the study period, on average, 28.5 percent of black children were reported in very good health, compared to 27.3 percent of white children (**Figure 4**). When black children and white children in the majority of sociodemographic subgroups are compared, black children and white children also are equally likely to be reported in very good health.

Good, Fair, Poor or Unknown Health Status

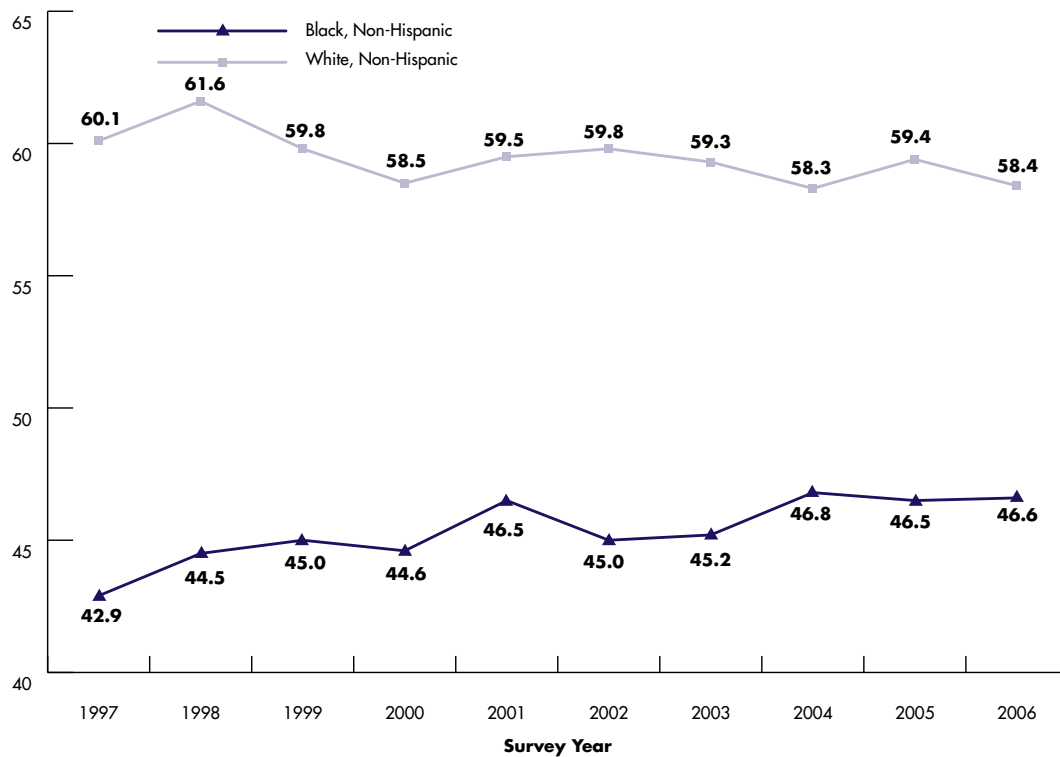
Black children were more likely than white children to be reported in good, fair, poor or unknown health. During the study period, on average, 26.2 percent of black children were reported in good, fair, poor or unknown health, compared to 13.2 percent of white children (**Figure 5**). When black children and white children in the majority of sociodemographic subgroups are compared, black children also are more likely than white children to be reported in this state of health (**Table 3**).

Table 3
Black-White Differences in Good, Fair, Poor or Unknown Health Rating by
Sociodemographic Variables

Sociodemographic Variables	Findings
Region of residence: Northeast	Black children who live in the Northeast are more likely than white children who live in the Northeast to be reported in good, fair, poor or unknown health.
Region of residence: North Central	Black children who live in the North Central are more likely than white children who live in the North Central to be reported in good, fair, poor or unknown health.
Region of residence: South	Black children who live in the South are more likely than white children who live in the South to be reported in good, fair, poor or unknown health.
Region of residence: West	Black children who live in the West are more likely than white children who live in the West to be reported in good, fair, poor or unknown health.
Marital status: married	Black children in families in which the householder's marital status is married are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Marital status: 'widowed, divorced, separated, never married, or unknown'	Black children in families in which the householder's marital status is widowed, divorced, separated, never married or unknown are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Family type: married-couple	Black children in married-couple families are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Family type: single-parent	Black children in single-parent families are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Educational attainment: high school	Black children in families in which the educational attainment of the householder/spouse is high school are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Educational attainment: some college	Black children in families in which the educational attainment of the householder/spouse is some college are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Educational attainment: Bachelor's degree (or higher)	Black children in families in which the educational attainment of the householder/spouse is a Bachelor's degree or higher are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Employment status: zero-earner household	Black children in zero-earner households are more likely than white children in zero-earner households to be reported in good, fair, poor or unknown health.
Employment status: single-earner household	Black children in single-earner households are more likely than white children in single-earner households to be reported in good, fair, poor or unknown health.



Figure 3
Children reported as being in 'Excellent' health, by race, 1997-2006
(Percent)

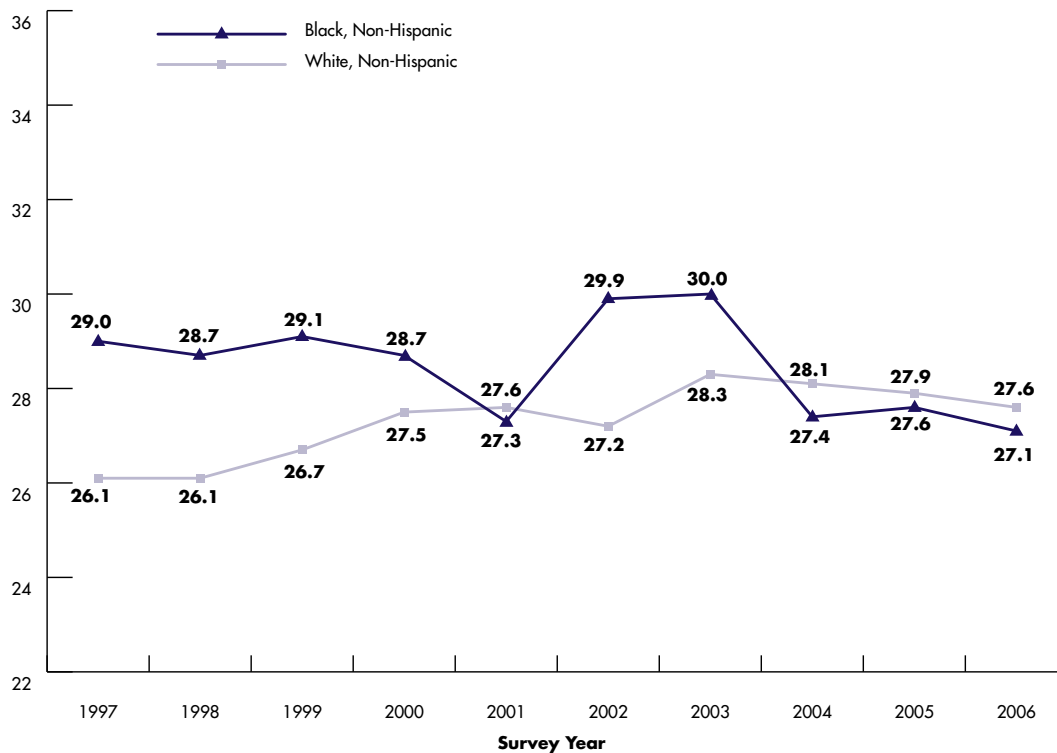


Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

Table 3 continued

Sociodemographic Variables	Findings
Employment status: two-earner household	Black children in two-earner households are more likely than white children in two-earner households to be reported in good, fair, poor or unknown health.
Poverty status: at or above poverty threshold	Black children in families with incomes at or above the poverty threshold are more likely than white children in this same type of family to be reported in good, fair, poor or unknown health.
Private insurance coverage status: not covered	Black children who are not privately insured are more likely than white children who are not privately insured to be reported in good, fair, poor or unknown health.
Private insurance coverage status: covered	Black children who are privately insured are more likely than white children who are privately insured to be reported in good, fair, poor or unknown health.
Medicaid coverage status: not covered	Black children who are not covered by Medicaid are more likely than white children who are not covered by Medicaid to be reported in good, fair, poor or unknown health.
Any health insurance coverage status: covered	Black children who are covered by any form of health insurance are more likely than white children who are covered by any form of health insurance to be reported in good, fair, poor or unknown health.

Figure 4
Children reported as being in 'Very good' health, by race, 1997-2006
(Percent)



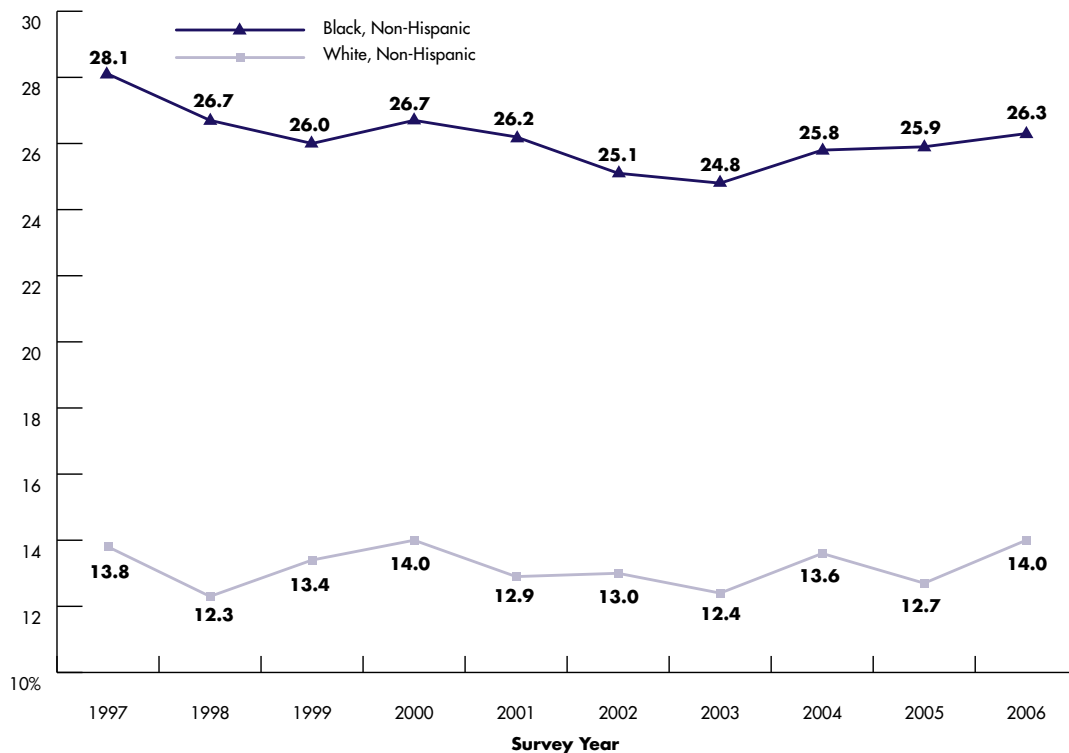
Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

In particular, African American children are more likely than white children to be reported in good, fair, poor or unknown health, regardless of the following variables: region of residence, marital status of householder, family type, household employment status and private health insurance coverage status. In families in which the householder/spouse has completed high school or beyond, black children are more likely than white children to be reported in good, fair, poor or unknown health. Only in families in which the householder/spouse has not completed high school are black children and white children equally likely to be reported in good, fair, poor or unknown health.

Black children in families with income at or above the federal poverty threshold are more likely than white children in the same type of family to be reported in good, fair, poor or unknown health. Among families with income below the federal poverty threshold, the relationship between the frequencies of this health status rating for black children and for white children is indeterminate. Hence, these frequencies are neither different from nor equal to one another for the two groups of children in a majority of years.

Although private health insurance coverage seems to have no effect on an adult's rating of a child's health as good, fair, poor or unknown, both Medicaid coverage status and possession of any form of health insurance seem to have significant effects. Black children not covered by Medicaid are more likely than white children not covered by Medicaid to be reported in good, fair, poor or unknown health. This contrasts with the finding for black children and white children covered by Medicaid, who are equally likely to be rated in good, fair, poor or unknown health. Both black children and white children covered by

Figure 5
Children reported as being in 'Good, Fair, Poor, or Unknown' health, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

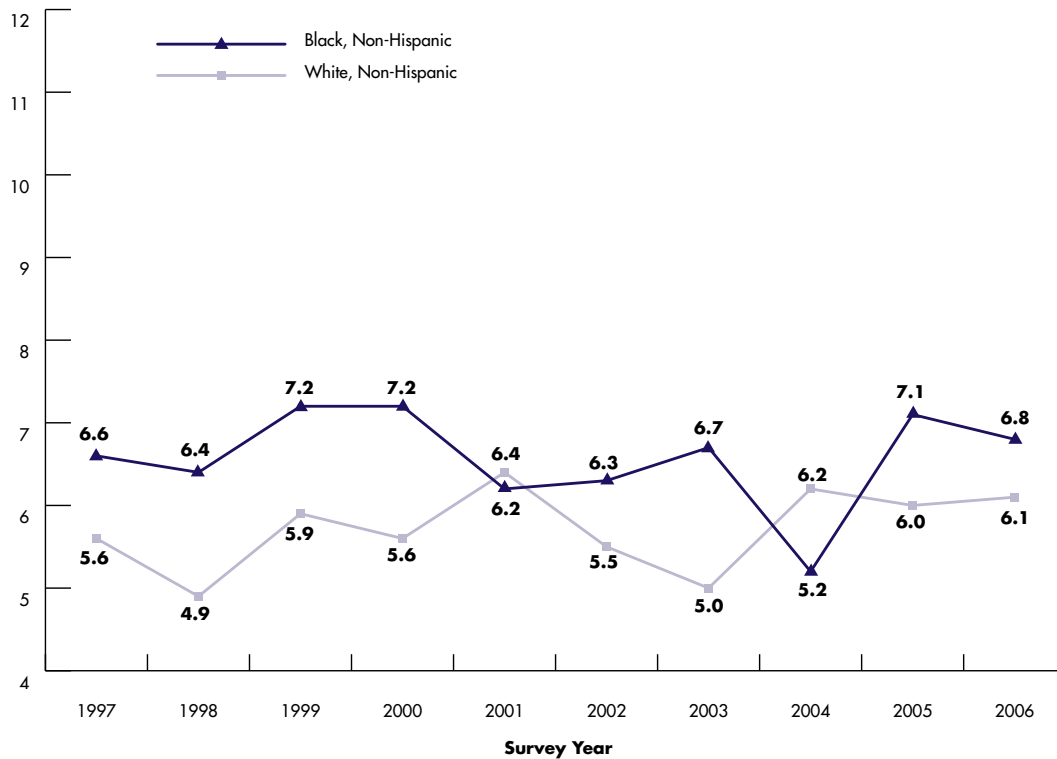
Medicaid, however, are more likely to be rated in good, fair, poor or unknown health (33.3 percent for black children and 28.2 percent for white children) than are their counterparts without Medicaid coverage (22.2 percent for black children and 11.3 percent for white children).

Black children *with* any form of health insurance are more likely than white children with any form of health insurance to be reported in good, fair, poor or unknown health. When black children and white children *without* any form of health insurance are compared, however, the relationship between the frequencies of this health status rating for the two groups of children is indeterminate. Thus, these frequencies are neither different from nor equal to each other for the two groups of children in a majority of the years between 1997 and 2006.

DENTAL CARE

As noted in a special report of the Surgeon General, good oral health is important to overall health (US DHHS, 2000). Chronic pain from dental disease can affect a child's cognitive development and his/her behavior. According to the Centers for Disease Control and Prevention, untreated dental disease can lead to problems in eating, speaking and learning (US DHHS, 2005). In the 1997-2006 period, data regarding unmet dental care needs among children in the past 12 months are used to examine access to dental treatment by race.

Figure 6
Children who have had recent unmet dental care needs, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

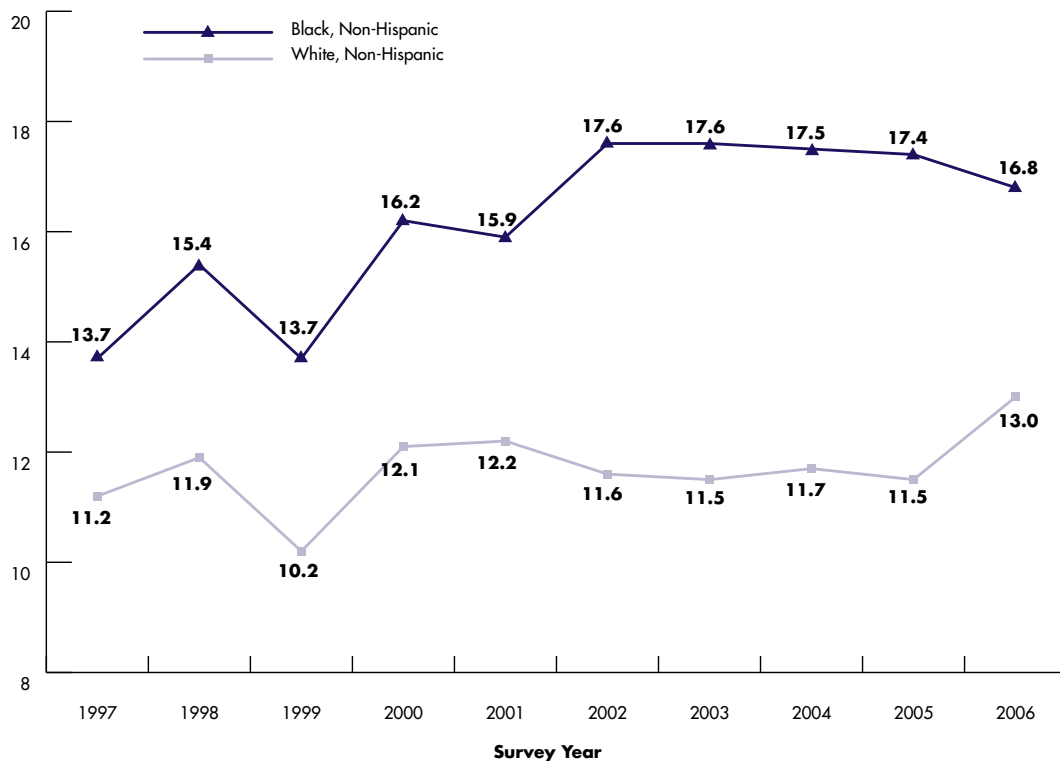
During the 1997-2006 period, black children and white children were equally likely to have experienced unmet dental care needs in the past 12 months. On average during the study period, 6.6 percent of black children and 5.7 percent of white children experienced such unmet needs (**Figure 6**). When black children and white children in the majority of sociodemographic subgroups are compared, black children and white children are also equally likely to have experienced unmet dental care needs in the past 12 months.

LIFETIME ASTHMA DIAGNOSIS

Among children, asthma is the leading cause of emergency room visits, hospitalization and school absence (Currie 2005). With diagnosis based on episodes of blocked airways, asthma affects a person's ability to breathe freely. The NHIS measure of lifetime asthma diagnosis used in this analysis indicates whether a child had ever been diagnosed with asthma.

Overall, black children were more likely than white children to have ever been diagnosed with asthma. On average, while 16.2 percent of black children had been diagnosed with asthma, only 11.7 percent of white children had ever been diagnosed with the ailment (**Figure 7**). Though black children as a group are more likely than white children as a group to have been diagnosed with asthma, black children in only four sociodemographic subgroups are also more likely than

Figure 7
Children ever diagnosed with asthma, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

white children to have been diagnosed with asthma (**Table 4**). For the rest of the within-sociodemographic-subgroup comparisons, the relationship between asthma diagnosis among black children and asthma diagnosis among white children is indeterminate or insignificant.

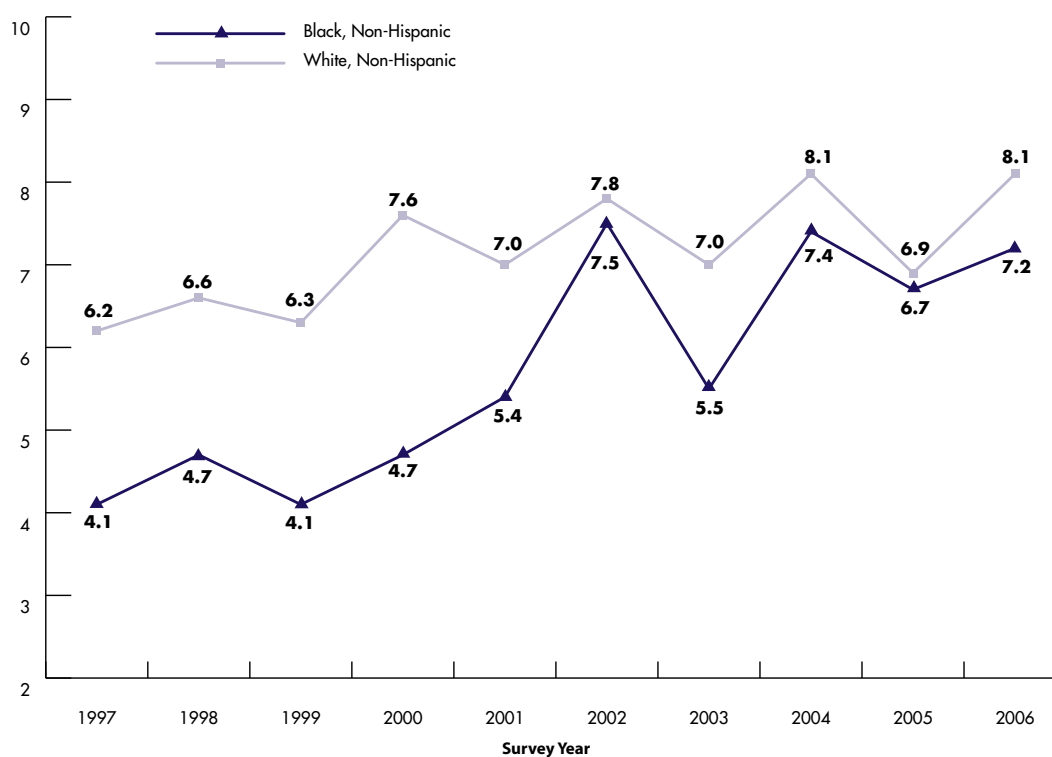
Table 4
Black-White Differences in Asthma Diagnosis by Sociodemographic Variables

Sociodemographic Variables	Findings
Region of residence: North Central	Black children who live in the North Central are more likely than white children who live in the North Central to have been diagnosed with asthma.
Poverty status: at or above poverty threshold	Black children who live in families with incomes at or above the poverty threshold are more likely than white children in this same type of family to have been diagnosed with asthma.

Sociodemographic Variables	Findings
Medicaid coverage status: not covered	Black children who are not covered by Medicaid are more likely than white children who are not covered by Medicaid to have been diagnosed with asthma.
Any health insurance coverage status: covered	Black children who are covered by any form of health insurance are more likely than white children who are covered by any form of health insurance to have been diagnosed with asthma.

Among families who live in the North Central region and among families with incomes at or above the federal poverty threshold, black children are more likely than white children to have been diagnosed with asthma. As with other health indicators, health insurance coverage seems to be a significant variable. Black children who are *not* covered by Medicaid are more likely than white children not covered by Medicaid to have been diagnosed with asthma. Black children and white children covered by Medicaid, however, are equally likely to have been diagnosed with asthma. Among low-income children, having Medicaid may equalize the likelihood of receiving an asthma diagnosis. At the same time, however, black children covered by any form of health insurance are more likely than white children covered by any form of health insurance to have received an asthma diagnosis. Although these comparisons may reflect differences in actual asthma incidence, they indicate that black children are usually more likely to be diagnosed with asthma than white children.

Figure 8
Children ever diagnosed with ADHD/ADD, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD/ADD)

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurobehavioral disorder characterized by either an inability to pay attention or by hyperactivity, or both. ADHD/ADD can last into adulthood, affecting numerous areas of life, including relationships with peers and family members and performance in school. In addition, some studies have demonstrated increases in substance abuse, risk-taking and criminal behaviors among adolescents and adults who have ADHD and other behavioral disorders (Centers for Disease Control and Prevention 2005).

Assessing the prevalence of ADHD is complex, and not without controversy.⁵ Because there is no specific test for ADHD/ADD, its diagnosis is less objective than that of other non-behavioral health conditions. In addition, the diagnosis of ADHD/ADD is based on identifying behaviors that often are normal for children, such as high activity levels.

During the study period, on average, 5.7 percent of black children received an ADHD/ADD diagnosis, compared to 7.2 percent of white children (Figure 8). The relationship between the overall frequencies of ADHD/ADD diagnosis for black children and for white children is indeterminate. In other words, these frequencies are neither different from nor equal to each other for the two groups of children in a majority of years. When black children and white children of four sociodemographic subgroups are compared, however, black children are found to be less likely than white children to have ever been diagnosed with ADHD/ADD (Table 5).

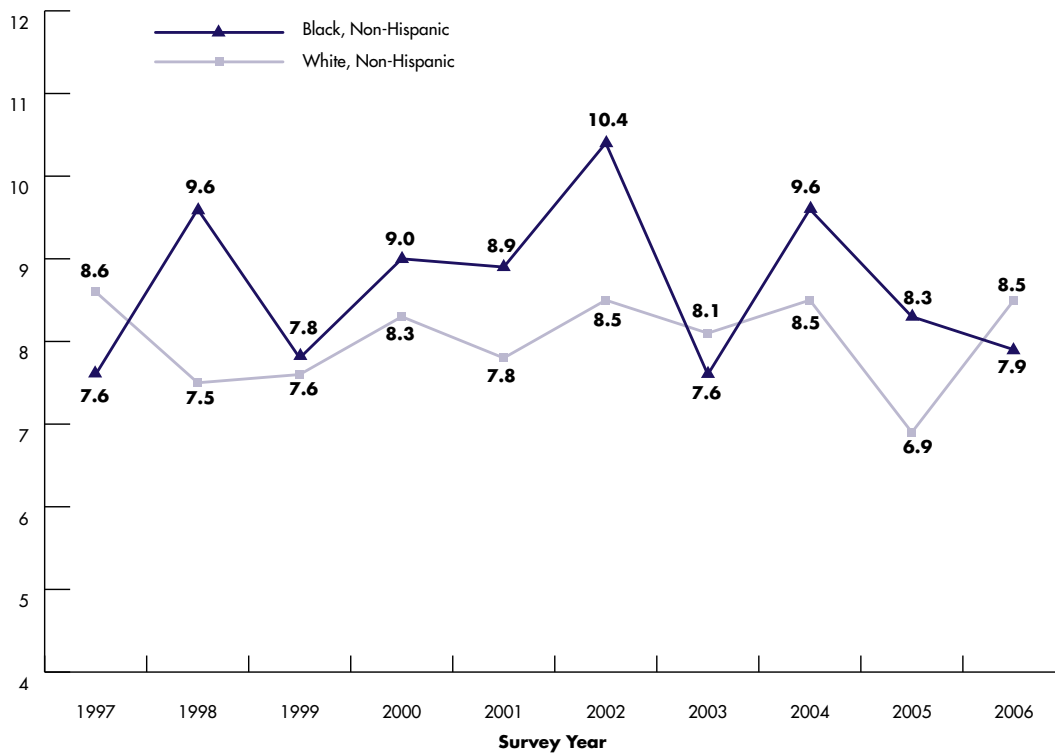
Table 5
Black-White Differences in ADHD/ADD Diagnosis by Sociodemographic Variables

Sociodemographic Variables	Findings
Marital status: ‘widowed, divorced, separated, never married or unknown’	Black children in families in which the householder’s marital status is widowed, divorced, separated, never married or unknown are less likely than white children in this same type of family to have been diagnosed with ADHD/ADD.
Family type: single-parent	Black children in single-parent families are less likely than white children in this same type of family to have been diagnosed with ADHD/ADD.
Private insurance coverage status: covered	Black children who are privately insured are less likely than white children who are privately insured to have been diagnosed with ADHD/ADD.
Medicaid coverage status: not covered	Black children who are not covered by Medicaid are less likely than white children who are not covered by Medicaid to have been diagnosed with ADHD/ADD.

Black children in families whose householder’s marital status is widowed, divorced, separated, never married or unknown are less likely than white children in families of this type to have been diagnosed with ADHD/ADD. The same relationship exists for black children and white children in families headed by a single parent. Black children not covered by Medicaid

5 Some studies find that boys are more likely to be diagnosed with ADHD/ADD, while girls and racial/ethnic minorities are diagnosed and treated less frequently. It is not completely understood whether this is due to differential identification of behavior among certain groups, or due to a real difference in prevalence (Currie 2005).

Figure 9
Children ever diagnosed with a learning disability, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

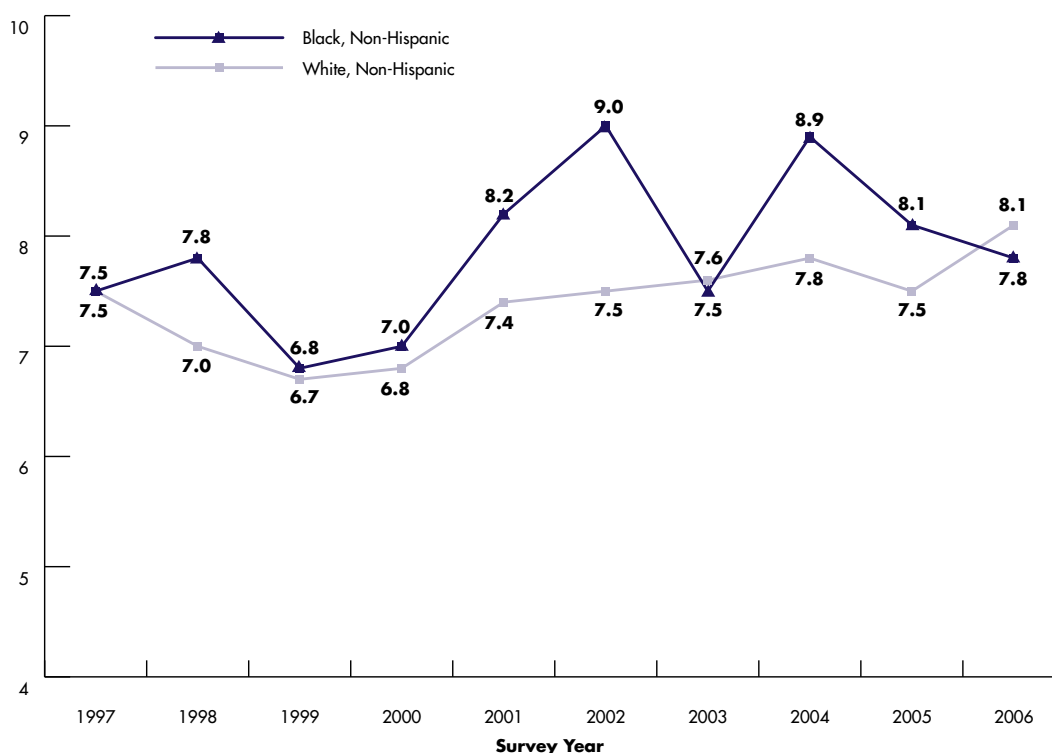
and black children who have private health insurance coverage are also less likely than their respective white counterparts to have been diagnosed with ADHD/ADD. One might think this means that black children with Medicaid coverage and black children without private health insurance are more likely to have received an ADHD/ADD diagnosis; however, that is not the case. The relationship between Medicaid coverage and ADHD/ADD diagnosis for black children and white children is indeterminate. Black children and white children not covered by private health insurance are equally likely to have been diagnosed with ADHD/ADD. Why these differences exist in the frequency of diagnosis with ADHD/ADD cannot be easily explained, given the many other factors found to be associated with the diagnosis of this behavioral condition.

LEARNING DISABILITY

A learning disability is not a single disorder, but rather includes disabilities in any of seven areas—receptive language (listening), expressive language (speaking), basic reading skills, reading comprehension, written expression, mathematics calculation and mathematical reasoning. In addition, different types of learning disabilities frequently co-occur with one another and with social skill deficits and emotional or behavioral disorders (Lyon 1996).



Figure 10
Children who have any activity limitation, by race, 1997-2006
(Percent)



Source: Joint Center tabulations of data from the National Health Interview Survey (NHIS)

Overall, black children and white children are equally likely to have been diagnosed with a learning disability. During the study period, on average, 8.7 percent of black children were reported to have been diagnosed with a learning disability, compared to 8.0 percent of white children (**Figure 9**). When black children and white children of all sociodemographic subgroups are compared, black children and white children also are equally likely to have ever been diagnosed with a learning disability.

ACTIVITY LIMITATION

The NHIS variable for activity limitation captures limitations in a person's activity due to a physical, mental or emotional problem (Integrated Health Interview Series n.d.). This variable is based on whether a child is limited in the kind or amount of play s/he can do (for children under 5 only); receives Special Education or Early Intervention services; needs help with activities of daily living (for 3-4 year olds only); has difficulty walking without special equipment; is limited due to memory problems or confusion; and/or is limited in any other activities. Overall, black children and white children are equally likely to be reported to have an activity limitation. During the study period, on average, 7.9 percent of black children were reported as having an activity limitation, compared to 7.4 percent of white children (**Figure 10**).

When African American children and white children in all but one of the sociodemographic subgroups are compared, these two groups also are equally likely to have ever been diagnosed with a learning disability. Only among children covered by Medicaid are black children and white children not equally likely to have been diagnosed with an activity limitation. The nature of the gap in the proportions of black children and white children covered by Medicaid who have been diagnosed with an activity limitation is indeterminate, however.

SYNTHESIS AND IMPLICATIONS

Between 1997 and 2006, disparities between black children and white children persisted on a number of key health indicators. Specifically, black children were more likely than white children to have been born low-weight; to be reported in “good, fair, poor or unknown” health; and to have ever been diagnosed with asthma. Black children also were less likely than white children to be reported in excellent health.

In respect to other health indicators, however, no differences between the two races were evident. For example, although the two races differ in the frequency with which they were rated in excellent health and in good, fair, poor and unknown health, black children and white children were equally likely to be rated in very good health. They were also equally likely to have experienced unmet dental care needs in the past 12 months. In addition, the two groups were equally likely to have ever been told they have a learning disability, and to have an activity limitation of any type. Whether black children are more, less or equally likely as white children to have been diagnosed with ADHD/ADD was indeterminate.

Some of these findings for black children and white children (under 18 years of age) change when comparisons are made between black children and white children in families with differing sociodemographic characteristics. For example, when children in families with income below the federal poverty level are compared, black children and white children are equally likely to have been diagnosed with asthma. Also among families with income below the federal poverty threshold, black children and white children are equally likely to be reported in excellent health. In addition, among children in families whose householder/spouse has less than a high school education, black children and white children are equally likely to have been born low-weight and to be reported in good, fair, poor or unknown health.

Black-White Gaps by Sociodemographics

When sociodemographic factors are taken into account, where do gaps in health indicators exist between black children and white children? When black children and white children are compared, the following is found to be true for the majority of sociodemographic subgroups:

- Black children are more likely than white children to have been born low-weight;
- Black children are less likely than white children to be reported in excellent health; and
- Black children are more likely than white children to be reported in good, fair, poor or unknown health.

In other words, when children in a majority of the subgroups defined by the 23 sociodemographic categories used in this analysis are compared, these three gaps between black children and white children persist. For example, when black children in married-couple families are compared to white children in married-couple families, black children fare worse than white children with respect to low birthweight, excellent health rating and good, fair, poor or unknown rating.

The following gaps are identified for black children and white children in a smaller number of sociodemographic subgroups:

- Black children are more likely than white children to have been diagnosed with asthma; and
- Black children are less likely than white children to have been diagnosed with ADHD/ADD.



Thus, in a small minority of sociodemographic subgroups, when black children and white children are compared, these gaps are exhibited. In other words, black/white gaps in asthma and ADHD/ADD are limited to a select few sociodemographic categories. (For asthma diagnosis, the categories are North Central region, at or above poverty threshold, not covered by Medicaid and covered by any type of health insurance. For ADHD/ADD diagnosis, the categories are the householder marital status of widowed, divorced, separated, never married or unknown, single-headed family, covered by private health insurance and not covered by Medicaid.)

INFLUENCE OF SOCIODEMOGRAPHICS ON HEALTH INDICATORS

Educational Attainment

Among families whose householder/spouse has low educational attainment, black children and white children are equally likely to have poor health outcomes. In particular, when comparing children in families in which the householder/spouse did not complete high school, black children and white children are equally likely to have been born low-weight and to be reported in good, fair, poor or unknown health. Although these children were also equally likely to be reported in excellent health, the likelihood of either black children or white children being rated in excellent health is less for children in families in which the householder/spouse did not complete high school than for children in families in which the householder/spouse has higher educational attainment.

Conversely, when comparing children in families in which the householder/spouse has educational attainment of high school or greater (i.e., high school completion, some college and Bachelor's degree or higher), black children and white children fare differently. Black children in this type of family are more likely than white children in this type of family to have been born low-weight and to be reported in good, fair, poor or unknown health. They are less likely than white children to be reported in excellent health.

In sum, only when black and white householders/spouses have the lowest educational attainment (i.e., did not complete high school) are their children equally likely to have a selected health outcome (low birthweight) and to have similar health ratings (excellent health, and good, fair, poor or unknown health). What happens as the educational attainment of white adults increases? Is this associated with disproportionate improvements in health ratings or outcomes for their children? Or, what happens as the educational attainment of African American adults increases? Is that associated with lesser improvements/gains in health ratings or outcomes for their children? What other factors are at work to result in these outcomes? These questions should be the subject of future analyses.

Poverty

When comparing black children in families with incomes below the poverty threshold to white children in families with incomes below the poverty threshold, gaps do not exist in any of the nine health indicators. When comparing children in families with incomes *at or above* the poverty threshold, however, black children are more likely than white children to have been born low-weight, to have received an asthma diagnosis and to be reported in good, fair, poor or unknown health. These black children also are less likely than white children to be reported in excellent health.

As with the findings about educational attainment, the outcomes with respect to poverty suggest questions that this analysis cannot answer. What is it about the experience of having income at or above the poverty threshold that results in these disparities between African American children and white children? What is it about the experience of poverty in the United States that equalizes outcomes for black children and white children? Answers to these questions might help us understand

the relationship between family income and the health gaps identified. Additionally, it may be useful to incorporate a more sensitive measure of poverty (rather than the dichotomous measure of at/above versus below the poverty threshold) to better capture the nature of differences in income level.

Health Insurance

When considering children who are *not* covered by any form of health insurance, no significant gaps are identified between black children and white children on any of the health indicators in a majority of study years. Black children and white children not covered by any form of health insurance either fared equally poorly on health indicators, or the nature of the black-white comparison was indeterminate. When considering children who are covered by any form of health insurance, however, black children are more likely than white children to have been born low-weight, to be reported in good, fair, poor or unknown health and to have an asthma diagnosis. Black children with any form of health insurance also are less likely than white children with any form of health insurance to be reported in excellent health.

When considering children who are covered by Medicaid, there are no significant gaps between black children and white children on any of the health indicators in a majority of the study years. When considering children who are *not* covered by Medicaid, however, black children are more likely than white children to have been born low-weight, to be reported in good, fair, poor or unknown health, and to have an asthma diagnosis. Black children also are less likely than white children to be reported in excellent health and to have an ADHD/ADD diagnosis.

For black children and white children not covered by Medicaid and covered by any form of health insurance, the health conditions for which significant differences exist are low birthweight, excellent health rating, good, fair, poor or unknown health rating, and asthma diagnosis. The diagnosis of ADHD/ADD is less common for black children than for white children not covered by Medicaid. The relationship of this measure for black children and white children is indeterminate among children covered by any form of health insurance, however. These findings could benefit from further examination.

These findings raise questions about the ways in which policies and programs—health insurance and anti-poverty, in particular—may influence the existence of differences between the health of black children and white children on selected health indicators. In families with generally low sociodemographic status (e.g., low educational attainment, income less than the federal poverty threshold or Medicaid coverage of the child), black children and white children fare equally (poorly) with respect to low birthweight, excellent health status, good, fair, poor or unknown health status and asthma diagnosis. It remains unclear as to why this “equality” between black children and white children is not evident at all sociodemographic levels.



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